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December 12, 2014

Mr. Gregory G. Nadeau, Acting Administrator  
Federal Highway Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Ms. Therese McMillan, Acting Administrator  
Federal Transit Administration  
East Building  
1200 New Jersey Avenue, SE  
Washington, DC 20590

re: FHWA Exploratory Advanced Research Program  
Novel Modes Workshop

Dear Mr. Nadeau and Ms. McMillan:

FHWA is to be congratulated for the Novel Modes Workshop held on December 2nd and 3rd 2014. The workshop served to highlight many promising new concepts and to explore some of the barriers to entry such concepts face. However, there was an entire class of novel modes missing – those already deployed overseas. The US has lost the lead in this field and needs to rapidly learn from the state of the practice in other countries. In addition, no clear path forward was addressed. This letter seeks to shed some light on both of these issues.

The request for information and resulting workshop were addressed to “entities who are conducting research and development on novel transportation systems”. This resulted in suppliers of automated transit network (ATN) systems who have already commercialized and deployed their systems not responding. If the desire of the FHWA is to facilitate the deployment of novel modes in the US, it must be recognized that the existing suppliers (2getthere, Modutram, Ultra and Vectus) have key roles to play. It should be noted that these suppliers jointly have five ATN deployments (none in the US), dating back as far as 1999.

In order for novel modes to emerge, the concepts must be developed, tested and commercialized. However, beyond this, it is vital that a market be established. Most of the modes represented at the workshop are still in the development phase seeking help with further development and testing. None seemed ready for commercialization or sales. It is considered vital

that FHWA focus on all phases. Conveniently, the market phase may be the easiest to facilitate. Establishing a US market for the existing suppliers will lift all boats and facilitate the development of new and, potentially, better alternatives.

We suggest three primary areas of focus:

1. Administrative changes to level the playing field
2. Equal focus on commercialization and market development
3. Funding of feasibility studies and implementation projects/demonstration systems

We have attached a list of potential actions covering all three of the above areas. Hopefully this list will help you find some actions that you can immediately move ahead with, while planning for the future implementation of those that are more complex and/or require more significant funding. We are available to meet with you and other key people to discuss them further should you so desire.

Yours sincerely,



Stanley E. Young, Ph. D., P.E.  
President, Advanced Transit Association

David Holdcroft, President  
Advanced Transit Association Industry Group

encl: Potential Action Items

cc: Kenneth Leonard, Director of the Intelligent Transportation Systems Joint Program Office  
David Kuehn, FHWA  
Michael Trentacoste, FHWA  
Gregory Winfree, USDOT  
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## Potential Action Items

(Approximately in order of increasing costs)

1. Remove the present emphasis on “corridor” solutions. Corridors are artificial devices required only by modes that require aggregation of passengers into large vehicles. We suggest using the term “service area” in place of “corridor”.
2. Require all transit alternatives analyses and technology assessments to seriously consider ATN using current information from operating systems.
3. Move from prescriptive specifications to performance-based specifications concerned with what the system provides and not how it does so.
4. Educate key technical staff (Federal, transit agency and consultants)
  - a. Encourage academic papers
  - b. Develop and distribute informational literature
  - c. Hold workshops and conferences
    - i. ATRA would be pleased to partner in a follow-on workshop addressing novel modes that are market-ready
  - d. Facilitate site visits.
5. Develop ATN planning and design guidelines
6. Conduct and publish independent systems assessments of existing operating systems
7. Educate the general public
  - a. The public generally loves the concept of ATN. At this stage it would help for the government to share that it really works and is being supported.
  - b. Show how elevated systems can enhance walkability, sustainability and quality of life
8. Undertake research projects on new or existing ATN systems to determine scalability and calibrate ridership models
9. Announce the availability of matching funds (with very few strings attached) for any new ATN projects (public or private). Perhaps have separate grants for feasibility studies and actual projects.
10. Provide grants to developers of the most promising novel systems
11. Construct one or more demonstration systems to prove the concept, scalability and mode split.

Note that the successful implementation of previous steps may well obviate much of the need for items 10 and 11.